

REMARKS

Claims 1-20 are pending. Claims 1, 9 and 11 have been amended to replace 65°C-200°C with 65°C-130°C. Accordingly, the Applicants do not believe that any new matter has been added.

A declaration under 37 C.F.R. 1.132 is submitted herewith showing the improved properties of materials produced at a temperature above 60°C but below 80°C, compared to materials produced at the lower temperature of 60°C.

The Applicants thank Examiner Kopec for the courteous and helpful discussion of April 30, 2004. Accordingly, favorable consideration and allowance of this application is respectfully requested.

RESTRICTION/ELECTION

The Applicants hereby confirm their election with traverse of Group I, Claims 1-8. The Applicants also confirm their election of the photoconductor species. Claims 1 and 2 are generic. Claims 6 and 7 fall within elected Group I, but were withdrawn as being directed to nonelected species (electroluminescent devices). Upon an indication of allowability for the generic claim, it is the Applicants' understanding that examination will be extended to nonelected species.

REJECTION - 35 U.S.C. § 103

Claims 1, 3, 4, 7, 8, 11 and 13-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 11-76763, JP 11-84694 or JP 7-56365. The Applicants reiterate their earlier response to this rejection. While the subject matter of claim 2, which is directed to a method involving a temperature range of 80°C to 130°C has been indicated as allowable, the concern was that there was not adequate support for the superior or improved properties of

materials within the lower temperature range of temperature range 65°C to 80°C or materials produced at temperatures above 130°C.

The upper value of the recited temperature range has now been limited to 130°C to avoid the latter concern. To address the remaining concern, the Applicants submit herewith experimental data showing the superior properties of materials produced at a temperature of 70°C compared to a similar material produced at the lower temperature of 60°C.

As shown in the Declaration of Katsumi Abe, product (A) which was produced at a temperature of 60°C exhibited a significantly higher residual potential ( $V_{w_0}$ ) or ( $V_{w_1}$ ) than Product B, which was produced using a temperature of 70°C (within the temperature range of the present invention). The following table is based on that shown in the Declaration and compares initial residual potential values ( $V_{w_0}$ ) and residual potential values after 900 repeated exposure and discharges ( $V_{w_1}$ ). In both cases, the material produced within the temperature range of the present invention exhibited significantly lower residual potential than the material produced at the lower temperature of 60°C.

	$V_{w_0}$ Residual potential (compared to reference)	$V_{w_1}$ Residual potential (compared to reference)
Product A (contacted with activated clay at 60°C)	1.29	1.20
Product A (contacted with activated clay at 70°C)	1.07	1.07

Accordingly, the Applicants respectfully submit that this rejection may now be withdrawn in view of the amendments above and in view of these experimental data showing the superior properties of a material produced at a temperature within the 65°C-80°C temperature range, compared to a similar material produced just outside this range at the lower temperature of 60°C.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly requested.

Respectfully submitted,

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IN THE UNITED STATES PATENTS & TRADEMARK OFFICE

IN RE APPLICATION OF

KATSUMI ABE, ET AL.

: EXAMINER: KOPEC, M.

SERIAL NO: 09/893,684

: GROUP ART UNIT: 1751

FILED: JUNE 29, 2001

FOR: METHOD FOR PURIFYING  
ELECTRONIC ITEM MATERIAL

DECLARATION UNDER 37 CFR 1.132

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Katsumi Abe who declares and says that:

1. I am one of the joint inventors of the above-identified application.
2. I graduated from Nihon University in 1994 and have been employed since 1994 by Hodogaya Chemical Co., Ltd. and engaged in research and development.
3. I have worked on the following experiments.

### Comparative Experiment

In order to prove the criticality of the lower limit of "65°C" of the contacting temperature range, the following experiments were carried out. Test samples were prepared by using charge-transporting material No. 1 employed in Example 1 of the present specification which was contacted with activated clay respectively at 60°C (product A) and at 70°C (product B).

Electrophotographic performances of the products A and B thus prepared were measured by using a photosensitive property-measuring apparatus of photosensitive drum (tradename "ELYSIA-II" manufactured by Trek Japan Corporation).

The products A and B were placed in the dark, and corona discharge of -5.5 kV was applied to them. Thereafter, when lighting an erase lamp of 50 lux, a charged potential  $V_o$  was measured. The voltage was applied so as to be 700 V as  $V_o$ . The products A and B were then exposed to white light of 70 lux to measure a residual potential  $V_{wo}$ . After repeating charging and exposing 900 times, a charged potential  $V_1$  and residual potential  $V_{w1}$  were measured.

The results are shown in the following table.

Evaluation by Photosensitive Drum

No.	Film thickness [ $\mu$ m]	$V_0$ [·V]	Comparison with Ref.	$V_1$ [·V]	Comparison with Ref.	$V_{W_0}$ [·V]	Comparison with Ref.	$V_{W_1}$ [·V]	Comparison with Ref.
Product A (contacted with activated clay at 60°C)	19.9	700		680		18	1.29	18	1.20
Product B (contacted with activated clay at 70°C)	20.2	700		675		15	1.07	16	1.07
Lot 068 (Ref.)	19.8	700	—	680	—	14	—	15	—

As evident from the above experimental data, it is proved that the product B prepared by contacting with activated clay at 70°C provides superior electrophotographic performances much more satisfactory than the product A prepared by contacting with activated clay at 60°C, and provides superior electrophotographic performances substantially equivalent to those of satisfactory standard product "Lot 068" (Ref.).

4. The undersigned petitioner declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

5. Further declarant saith not.

Respectfully submitted,

July 23, 2004  
Date

Katsumi Abe  
Katsumi Abe